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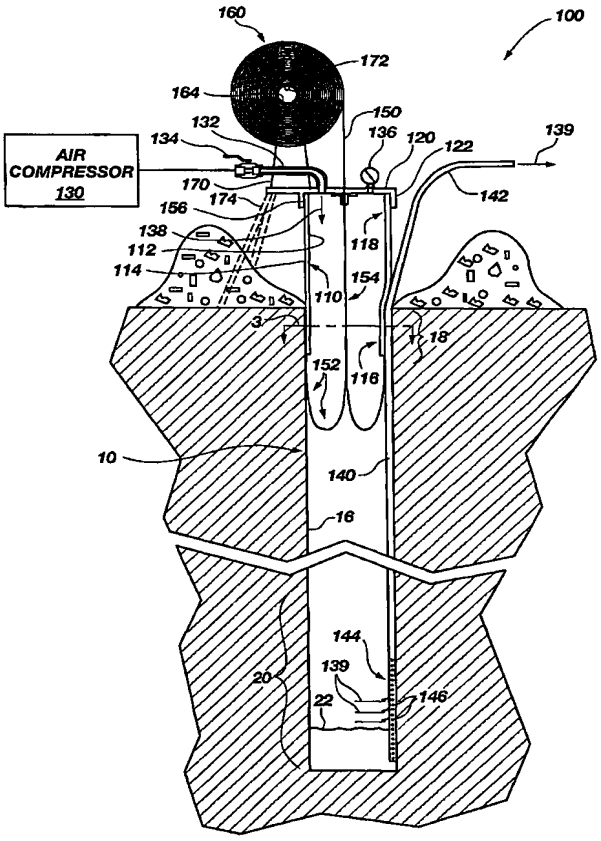
(54) Title: BLAST HOLE LINER SYSTEM AND METHOD FOR THE SAME



(57) Abstract: The present invention relates to a method and apparatus providing a blast hole sealing system (100) configured to substantially seal explosive material in a blast hole (10) from moisture. The blast hole sealing system includes a securing structure (110), a cap member (120), a tubular liner and an air compressor (130). The securing structure is operable to be disposed over an upper portion of the blast hole. The cap member defines a nozzle opening (124) and a liner passage (126) therein and is operable to attach to a top portion of the securing structure. The tubular liner includes an unexpanded configuration (154) having a length with an openable-expandable end (156) and a sealed tail end (158). The openable-expandable end is operable to be disposed through the liner passage in the cap member so that an end portion disposed therethrough is invertedly opened in an expanded configuration and operatively secured to the securing structure. The air compressor (130) is operatively coupled to the cap member and operable to compress air through the nozzle opening in the cap member against the expanded configuration of the tubular liner to invertedly expand and progressively advance the tubular liner into the blast hole with radial expanding movement of the tubular liner along a wall length of the blast hole. The air compressor is operable to invertedly expand the tubular liner against the wall length of the blast hole so that the sealed tail end is disposed at a lower portion of the blast hole within the expanded configuration of the tubular liner. With this arrangement, the tubular liner is operable to receive the explosive material and seal the explosive material from moisture in the blast hole.

WO 2005/003678 A2

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